

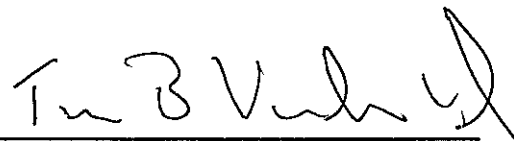
**Revised Report of Results: MVA5394**

**Analysis of Settled Dust  
714 P Street-OB8**

**Prepared for:**

**State of California  
Dept of General Services  
Seismic & Special Programs  
707 West 3rd St.  
West Sacramento, CA 95605**

**Respectfully Submitted by:**



**Tim B. Vander Wood, Ph.D.  
Executive Director**

**MVA Scientific Consultants  
3300 Breckinridge Boulevard  
Suite 400  
Duluth, GA 30096**

**Supersedes Report Dated 29 August 2007**

**10 October 2007**



**Revised Report of Results: MVA5394****Analysis of Settled Dust - 714 P Street-OB8****Introduction**

On 20 July 2007, we received five settled dust samples and a blank from Clark Sief Clark, reportedly collected from 741 P Street #OB8, Sacramento, California. The Chain of Custody was incorrect. The address that the samples were collected from was 714 P Street, #OB8, Sacramento, California. We were asked to determine the asbestos levels in the dust and possible sources for the asbestos. Upon receipt, the samples were assigned MVA Scientific Consultants laboratory identification numbers as follows:

<u>Sample ID</u>	<u>Sample Description</u>	<u>MVA Number</u>
16VA	5 <sup>th</sup> floor-overhang, soffit area north	S0847
17VA	5 <sup>th</sup> floor-overhang, soffit area west	S0848
18VA	6 <sup>th</sup> floor-overhang, soffit area west	S0849
19VA	6 <sup>th</sup> floor-overhang, soffit area south	S0850
20VA	Basement-Mechanical Room-floor	S0851
21Blank	Blank	S0852

All analyses were carried out in our laboratory during the period 20 July through 29 August 2007.

**Methods**

The samples were analyzed according to ASTM Method D5755-03 using either a Philips model EM420 or a Philips model CM120 transmission electron microscope (TEM), equipped with an Oxford INCA energy dispersive x-ray spectrometer (EDS). Additional analyses for dust constituents that may serve as source indicators were also conducted by TEM/EDS.

**Results and Discussion**

The results of analysis for these samples are presented in Table 1. The Appendix contains a summary of the analytical results, the laboratory count sheets, and images and EDS spectra of typical asbestos fibers found in these samples. Also contained in the appendix are images and spectra showing vermiculite associated with chrysotile fibers and other asbestiform amphibole minerals typical of those known as "Libby amphibole" and observed as contaminants in vermiculite from the Libby, Montana vermiculite mine operated by W.R. Grace.



## Conclusions

Dust analyzed in this study contains elevated levels of chrysotile asbestos. Portions of the dust are consistent with derivation from a chrysotile/vermiculite bearing fireproofing. Asbestiform amphibole consistent with "Libby amphibole" was also found, indicating that the vermiculite in this dust originated at least in part at W.R. Grace's Libby vermiculite mine.

**Table 1. Asbestos Concentration in Settled Dust Samples**

Sample ID	MVA Number	Asbestos Str/cm <sup>2</sup>
16VA	S0847	150,720,000
17VA	S0848	247,711,111
18VA	S0849	191,888,889
19VA	S0850	275,622,222
20VA	S0851	443,088,889
21VA	S0852	None Detected





Requested TAT (Circle One)	Same Day	One Day (24hr)	Normal (48hr)
Analysis Type (Circle One)	Air	Surface	Bulk Water

CSC Project #	Claim #	Sampling By	# of Samples	Date(s) Taken	Page #	Total Pages	
1014265		FA	6	7.18.07	1	1	
Client Information:							
Project Name & Location: W.R. Grace							
741P Street #088							
Sacramento, CA							
Sampling Area and/or Building #:							
Sample #	Date	Sample Location	Pump #	Start Flow Rate End Flow Rate	Start Time End Time	Total Volume/Area	Type of Analysis
16VA	7.18.07	5th floor - Overhang	IAQ #6	10.91 10.91	2min	100 cm <sup>2</sup>	
17VA		5th floor - Overhang		10.91 10.91	2min	100 cm <sup>2</sup>	
18VA		6th floor - Overhang		10.91 10.91	2min	100 cm <sup>2</sup>	
19VA		6th floor - Overhang		10.91 10.91	2min	100 cm <sup>2</sup>	
20VA		Basement - Mechanical		10.91 10.91	2min	100 cm <sup>2</sup>	
21 Blank		Blank					
Relinquished By (Print & Sign)							
FRANCO SETTE / July 19, 2007							
Relinquished By (Print & Sign)							
Received By (Print & Sign)							
Date & Time							
7/20/07							
Analysis By (Print & Sign)							
Analysis Date & Time							

## APPENDIX



**ASTM D5755 Results****MVA 5394**

By: W.Hill

**Client project number:**Str/cm = No Str. X CFA X Total Vol.

Grid Op. X GO Area X Vol Filt X Area Sampled

MVA #:		S0847	Client #:		16.VA	
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
54	1256	5	0.009	0.01	100	100

Anal. Sens = 2791111.111 Str/CM2 LOD =3\* Anal. Sens = 8373333.333

Total = 150720000.000 Str/CM2

MVA #:		S0848	Client #:		17.VA	
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
71	1256	4	0.009	0.01	100	100

Anal. Sens = 3488888.889 Str/CM2 LOD =3\* Anal. Sens = 10466666.667

Total = 247711111.111 Str/CM2

MVA #:		S0849	Client #:		18.VA	
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
55	1256	4	0.009	0.01	100	100

Anal. Sens = 3488888.889 Str/CM2 LOD =3\* Anal. Sens = 10466666.667

Total = 191888888.889 Str/CM2

MVA #:		S0850	Client #:		19.VA	
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
79	1256	4	0.009	0.01	100	100

Anal. Sens = 3488888.889 Str/CM2 LOD =3\* Anal. Sens = 10466666.667

Total = 275622222.222 Str/CM2

MVA #:		S0851	Client #:		20.VA	
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
127	1256	4	0.009	0.01	100	100

Anal. Sens = 3488888.889 Str/CM2 LOD =3\* Anal. Sens = 10466666.667

Total = 443088888.889 Str/CM2



<b>MVA #:</b> S0852		<b>Client #:</b> 21.VA				
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
0	1256	10	0.009	10	100	0

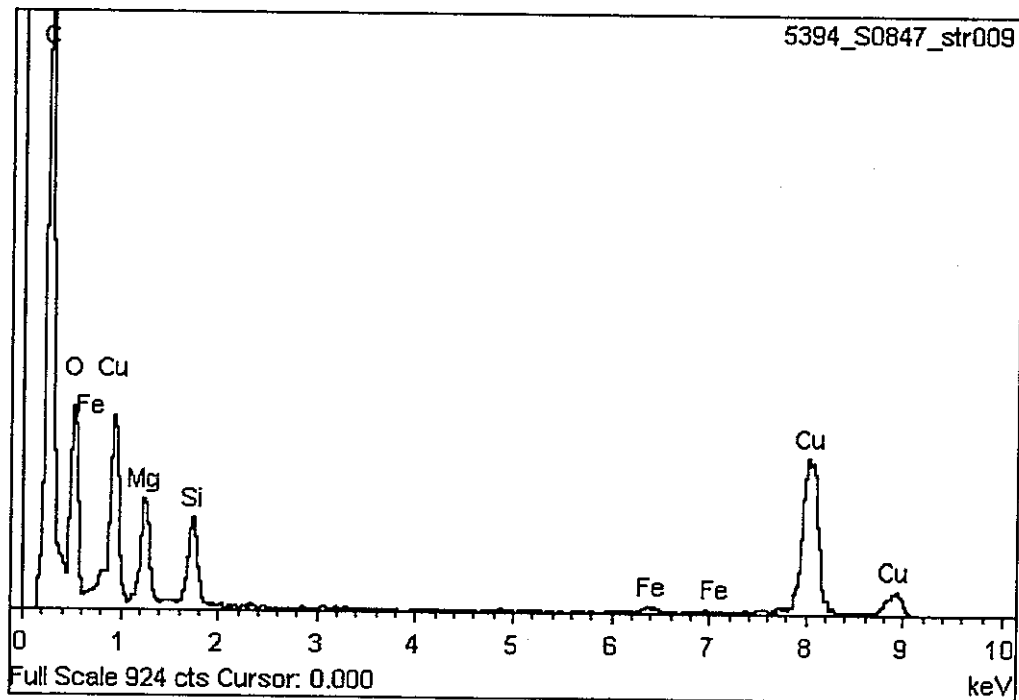
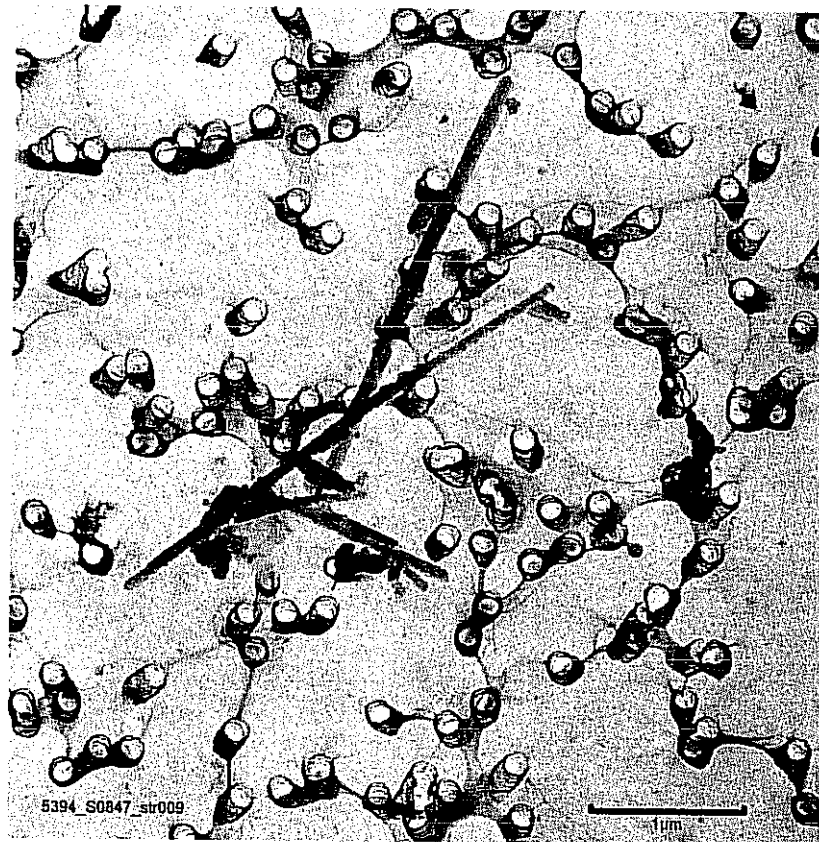
Anal. Sens = 1395.566\*\* Str/CM2 LOD =3\* Anal. Sens = 4186.667\*\*

Total = 0.000 Str/CM2

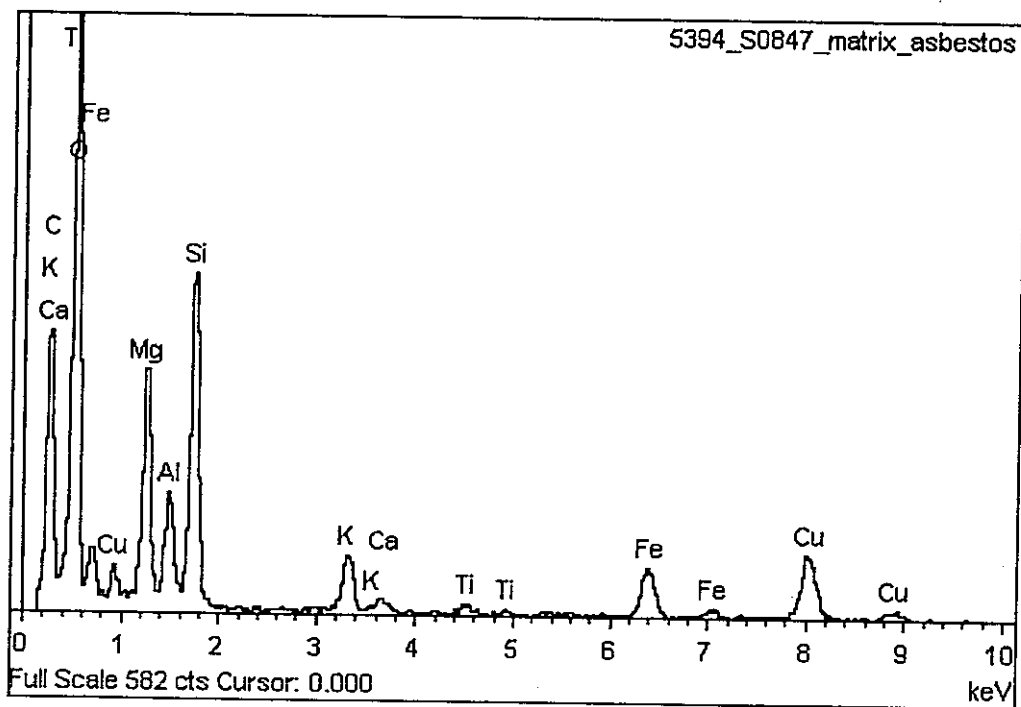
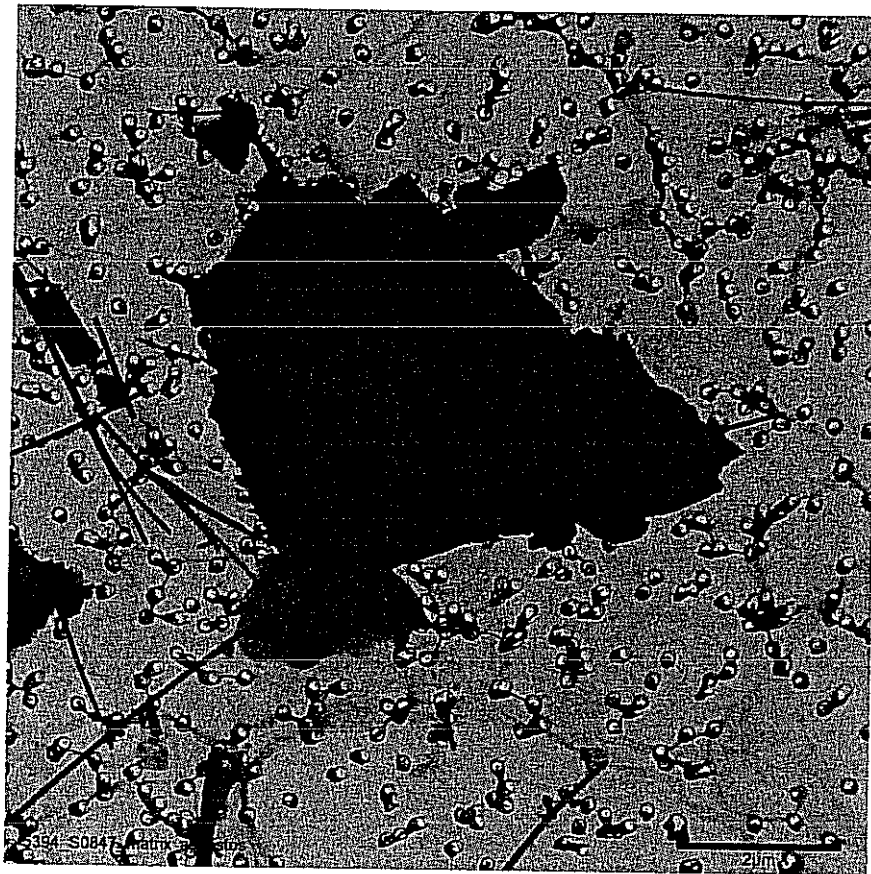
\* According to ASTM D6620

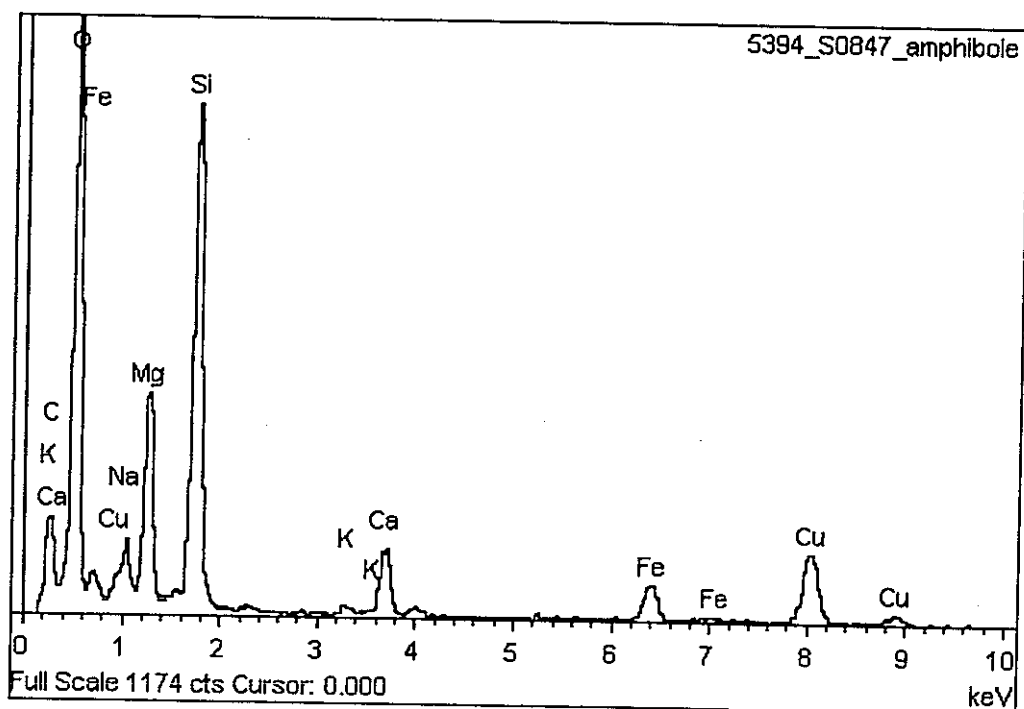
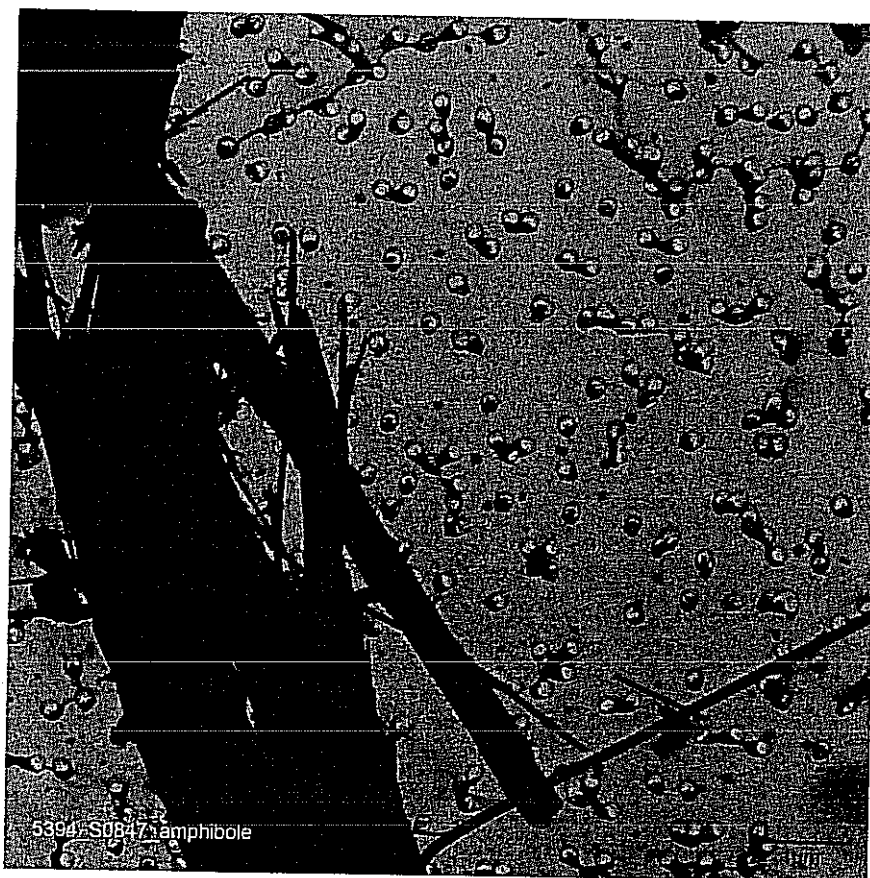
\*\* Analytical Sensitivity Assuming 100cm<sup>2</sup> Sampling Area

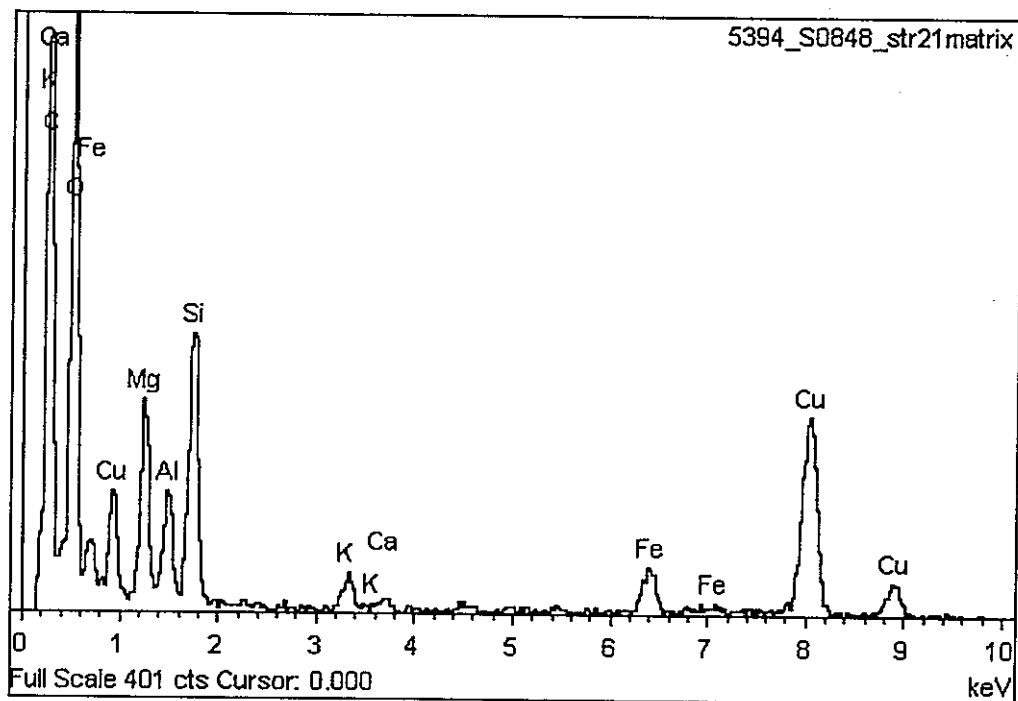
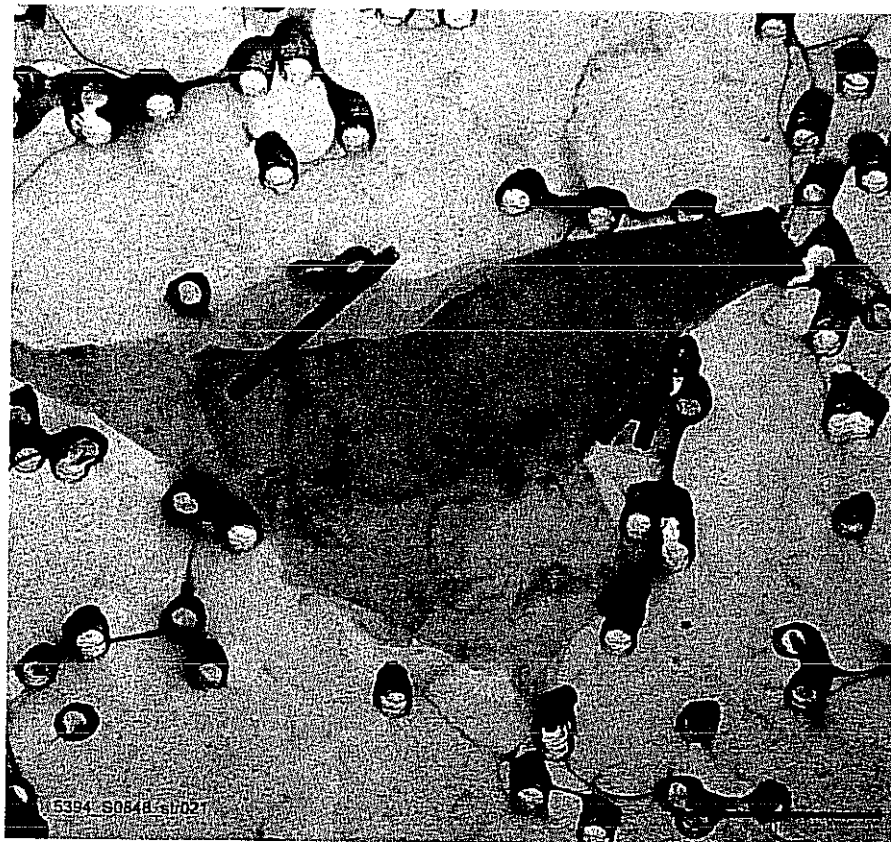


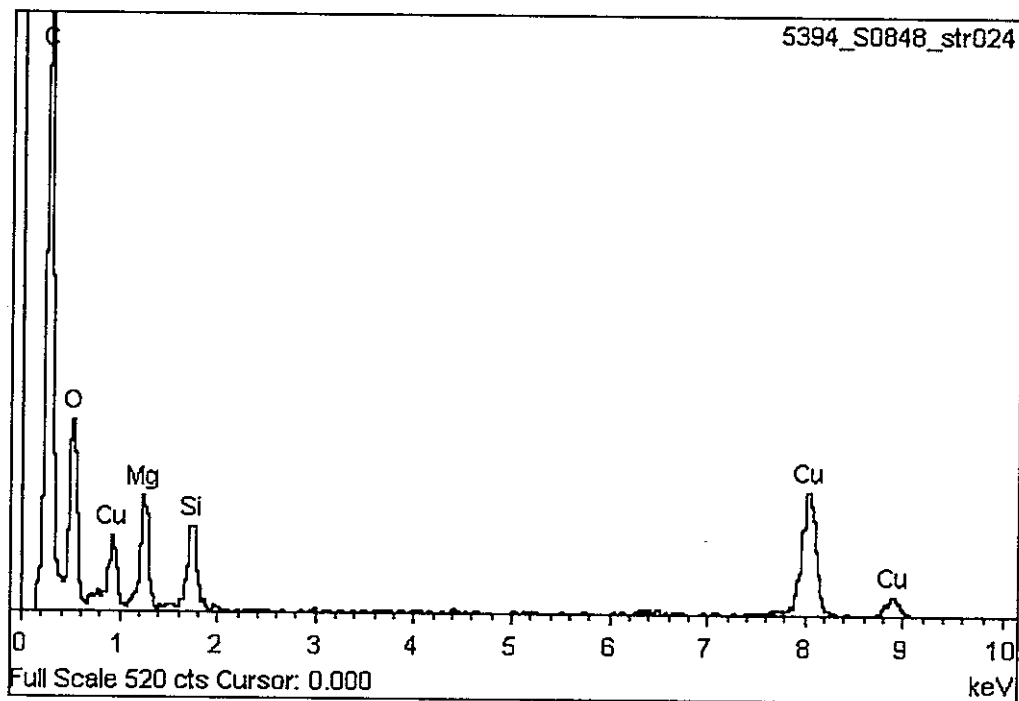
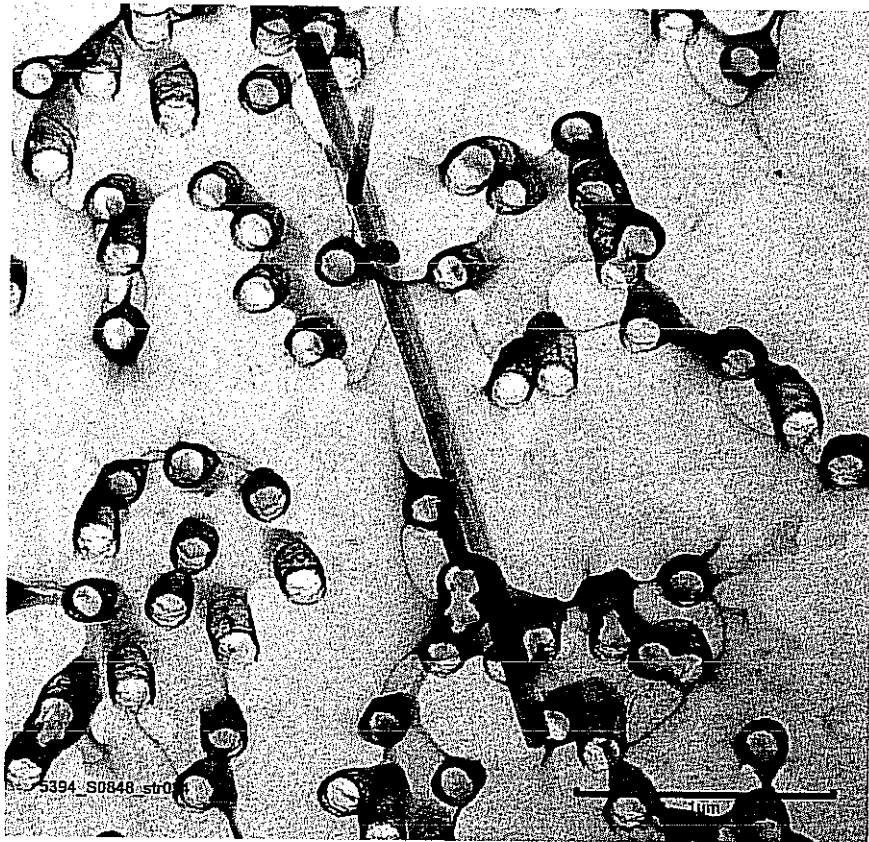


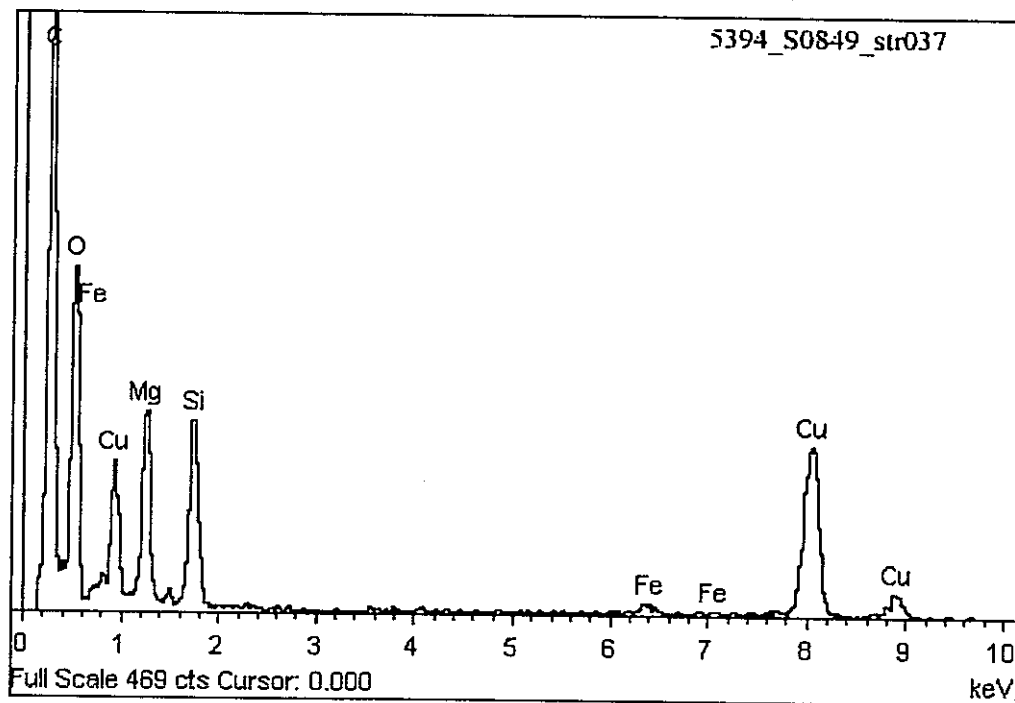


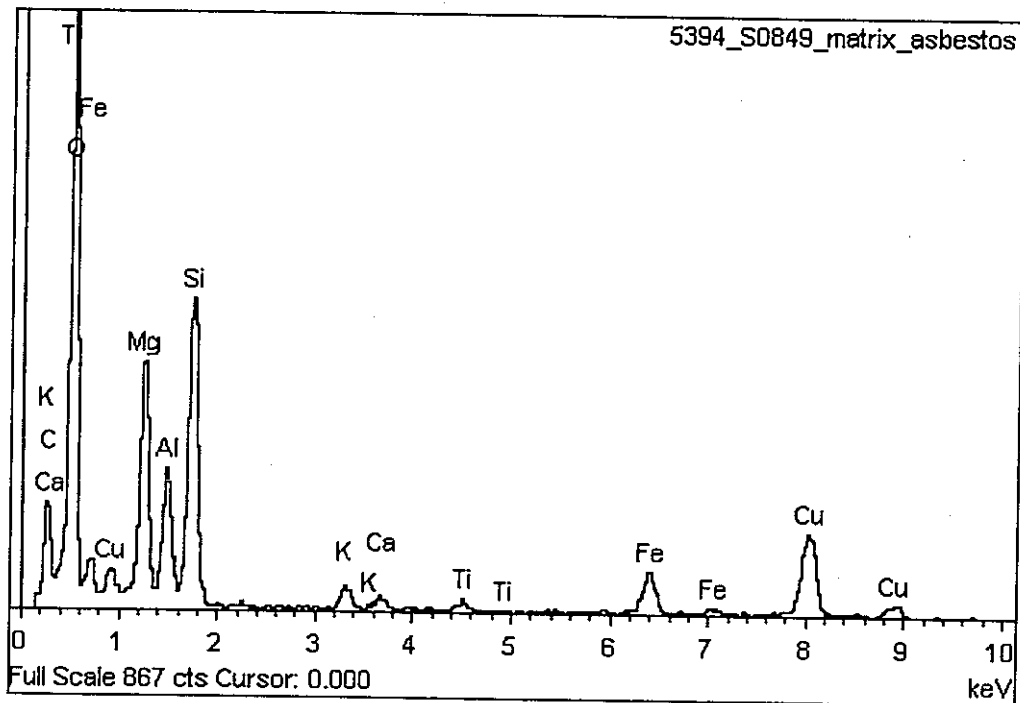


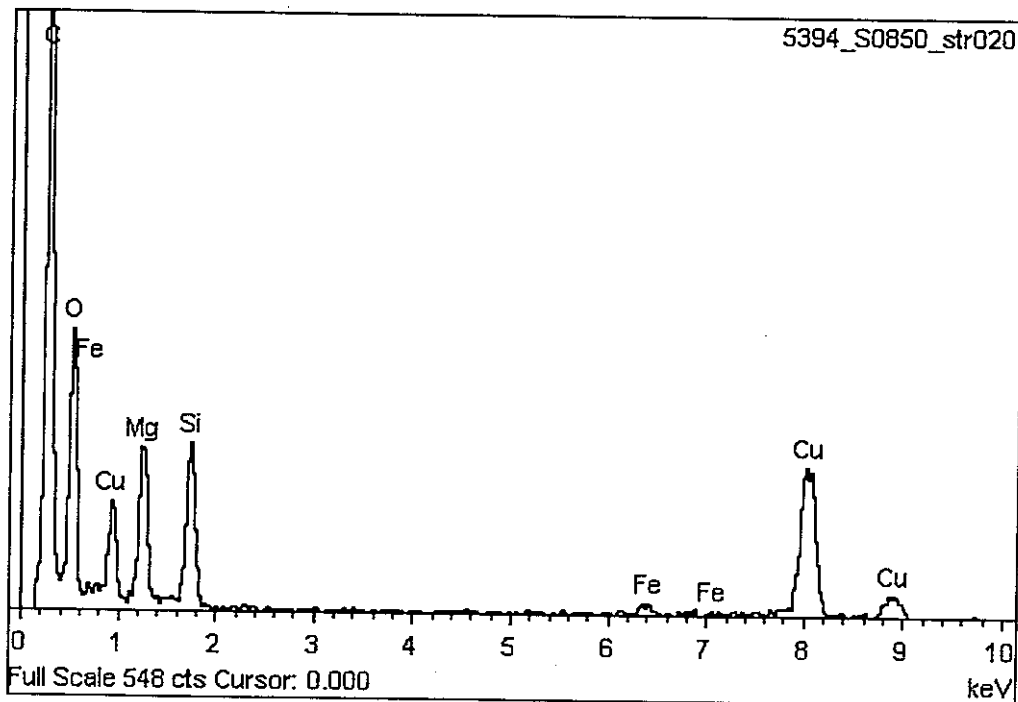
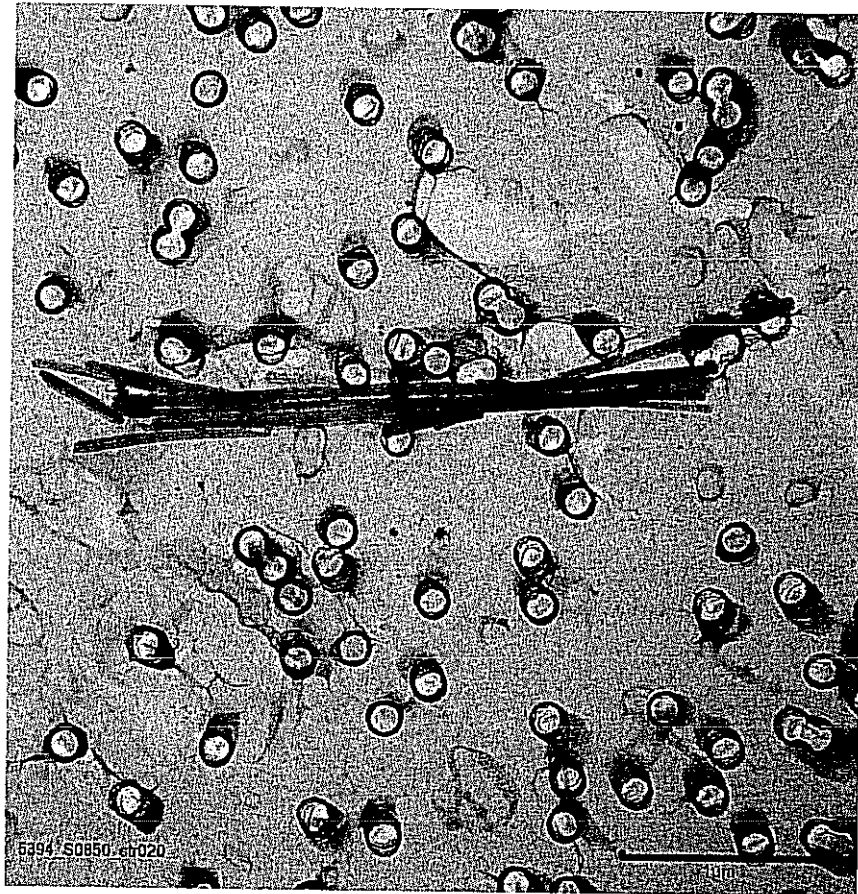




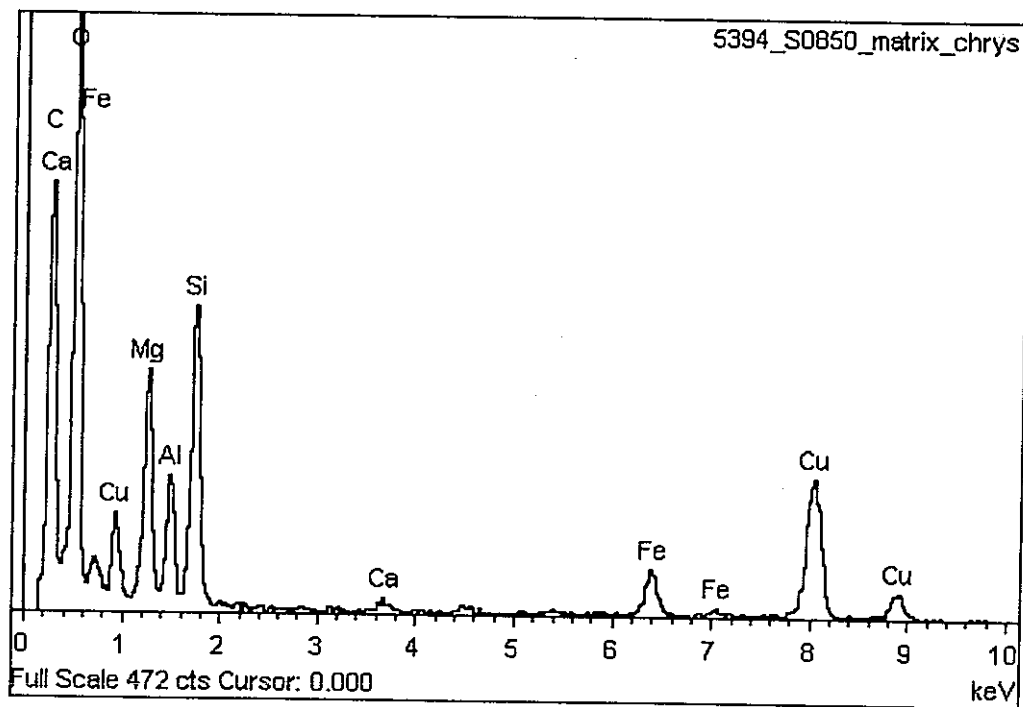
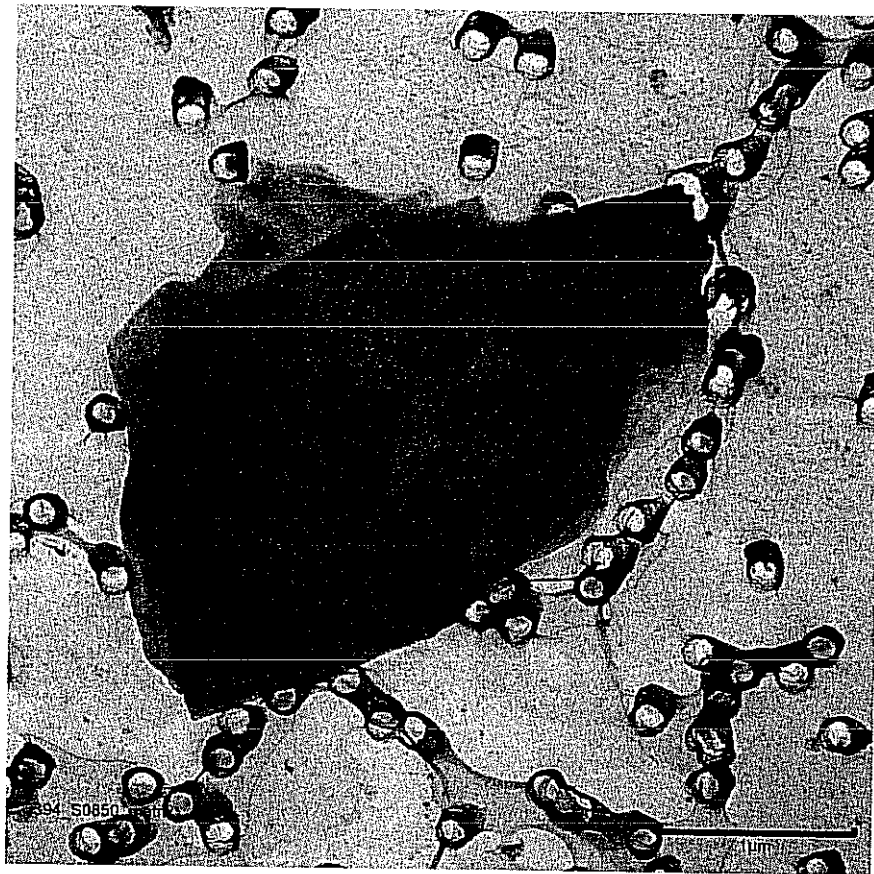




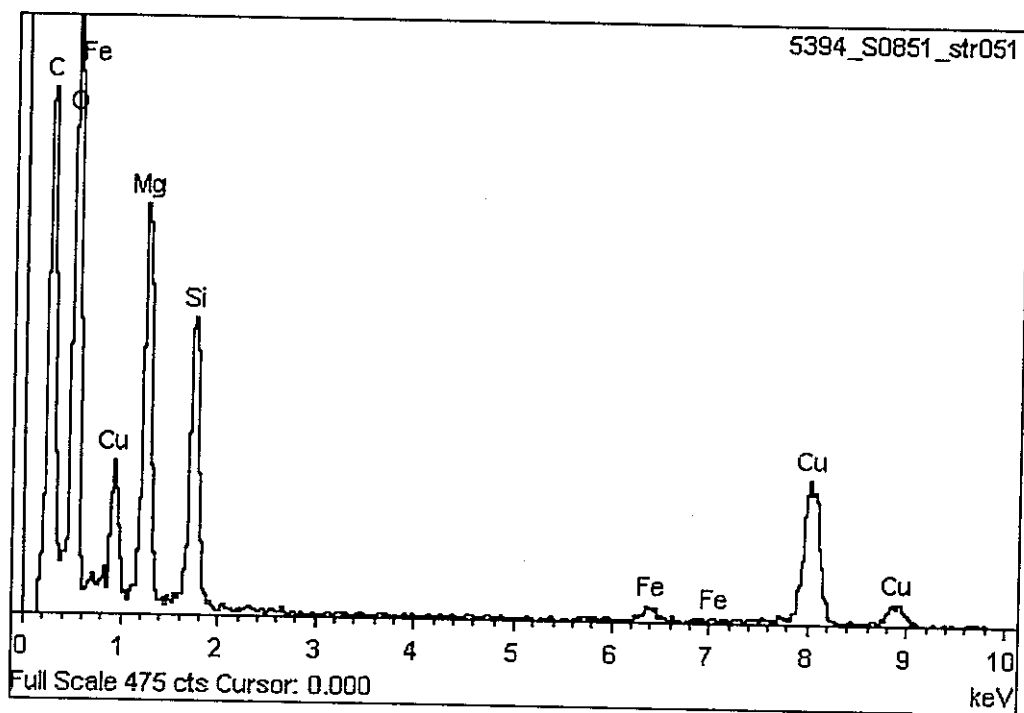
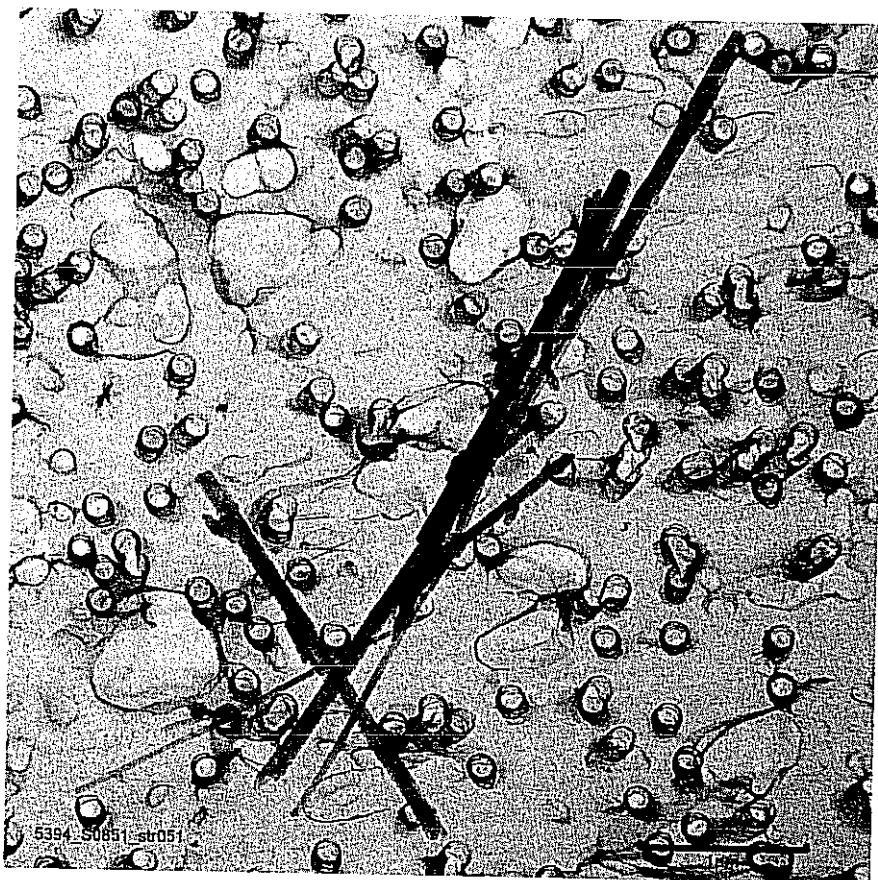


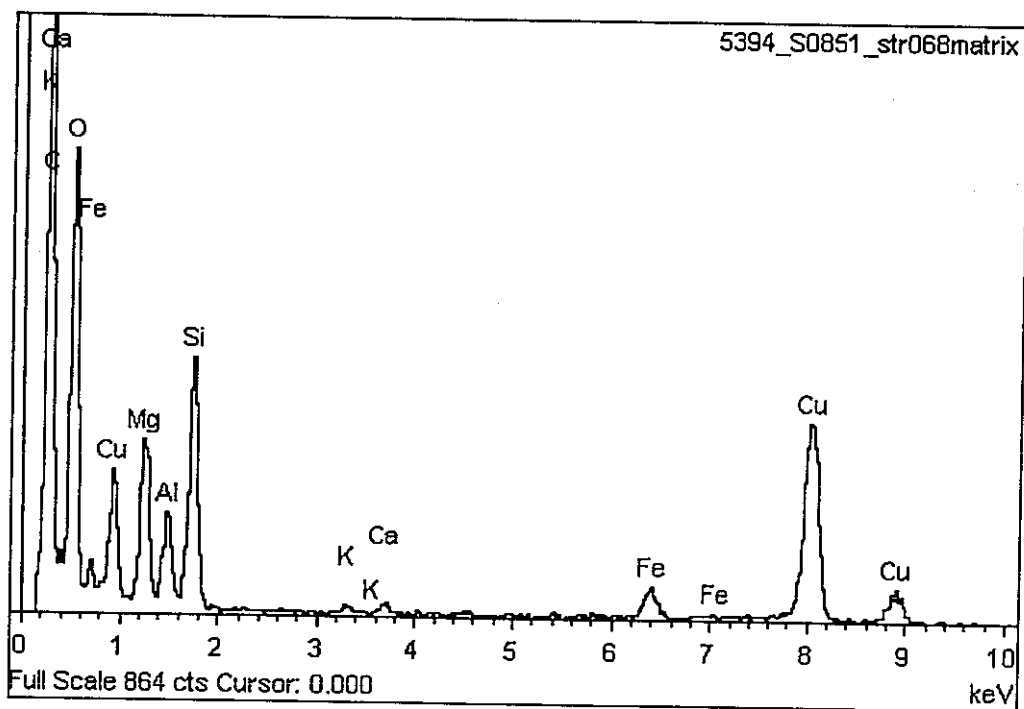
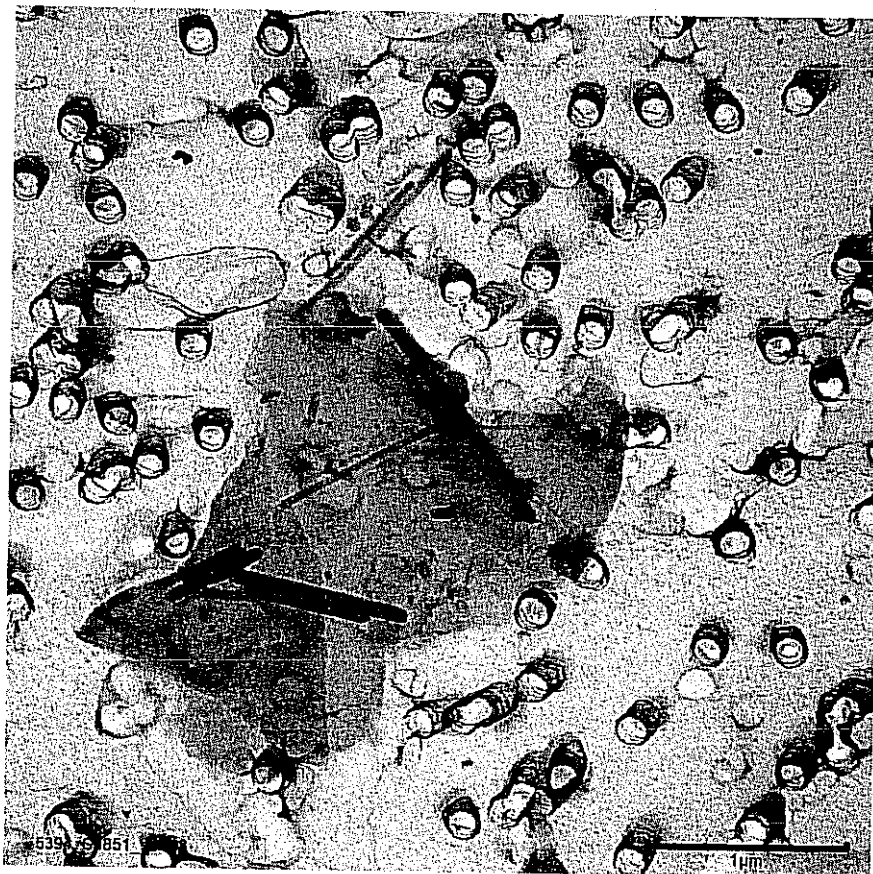












**MVA SCIENTIFIC CONSULTANTS**  
**Surface Dust Sample Analysis Sheet**

MVA Project#	5394	Amt Collected(cm <sup>2</sup> ):	100
MVA Sample#	S0847	Amt Prepped(cm <sup>2</sup> ):	0.01
Client I.D.:	16.VA	Filter Area (mm <sup>2</sup> ):	1256
Instrument:	Philips 120	Filter Type:	PC
Magnification:	24,000	Openings Analyzed:	5
Acc. Voltage:	100	Grid Opening (mm <sup>2</sup> ):	0.009

Analyst:	WH
Date:	8/6/2007-8/7/2007
Page:	1 of 2
Comments:	0.01 ml
ASTM Method:	D6480
	or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	B2	1	F	4.5	0.1	C			1.9	0.04
		2	F	4.0	0.1	C			1.7	0.04
		3	F	3.0	0.15	C			1.3	0.06
		4	C	2.5	1	C			1.0	0.42
		5	F	5.4	0.1	C			2.3	0.04
		6	F	1.5	0.1	C			0.6	0.04
		7	F	8.0	0.1	C			3.3	0.04
		8	F	2.5	0.1	C			1.0	0.04
		9	C	11.0	3	C	C	photo	4.6	1.25
	C5	10	B	45.5	1.9	C			19.0	0.79
		11	F	9.0	0.1	C			3.8	0.04
		12	F	4.5	0.1	C			1.9	0.04
		13	F	9.0	0.1	C			3.8	0.04
		14	F	5.4	0.1	C			2.3	0.04
		15	B	21.5	0.5	C			9.0	0.21
		16	F	2.1	0.1	C			0.9	0.04
		17	B	6.0	0.7	C			2.5	0.29
		18	F	5.0	0.1	C			2.1	0.04
		19	F	6.5	0.1	C			2.7	0.04
	D8	20	B	7.5	0.4	C			3.1	0.17
		21	F	9.0	0.1	C			3.8	0.04
		22	F	10.2	0.15	C			4.3	0.06
		23	F	7.5	0.1	C			3.1	0.04
		24	B	9.0	0.6	C			3.8	0.25
		25	F	3.2	0.1	C			1.3	0.04
		26	F	3.5	0.1	C			1.5	0.04
		27	F	6.0	0.15	C			2.5	0.06
		28	B	34.5	1	C			14.4	0.42
		29	B	6.0	0.3	C			2.5	0.13
		30	F	6.0	0.1	C			2.5	0.04
	E10	31	M	9.5	0.5	C			4.0	0.21
		32	F	5.6	0.1	C			2.3	0.04
		33	B	30.5	0.6	C			12.7	0.25
		34	F	18.0	0.1	C			7.5	0.04
		35	B	5.6	0.5	C			2.3	0.21

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project#	5394	Amt Collected(cm <sup>2</sup> ):	100
MVA Sample#	S0847	Amt Prepped(cm <sup>2</sup> ):	0.01
Client I.D.:	16.VA	Filter Area (mm <sup>2</sup> ):	1256
Instrument:	Philips 120	Filter Type:	PC
Magnification:	24,000	Openings Analyzed:	5
Acc. Voltage:	100	Grid Opening (mm <sup>2</sup> ):	0.009

or D5755

$$\bar{x}$$
5394report082907\_741P\_rev1\_714P\_101007

## MVA SCIENTIFIC CONSULTANTS

## Surface Dust Sample Analysis Sheet

MVA Project# 5394 Amt Collected(cm<sup>2</sup>): 100  
MVA Sample# S0848 Amt Prepped(cm<sup>2</sup>): 0.01  
Client I.D.: 17.VA Filter Area (mm<sup>2</sup>): 1256  
Instrument: Philips 120 Filter Type: PC  
Magnification: 24,000 Openings Analyzed: 4  
Acc. Voltage: 100 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH

Date: 8/7/2007

Page: 1 of 3

Comments: 0.01 ml

ASTM Method: D6480

or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	F4	1	F	7.5	0.1	C			3.1	0.04
		2	F	3.5	0.1	C			1.5	0.04
		3	F	26.5	0.1	C			11.0	0.04
		4	M	6.0	0.1	C			2.5	0.04
		5	B	7.0	0.5	C			2.9	0.21
		6	F	13.5	0.1	C			5.6	0.04
		7	C	11.0	2	C			4.6	0.83
		8	B	2.5	0.5	C			1.0	0.21
		9	F	12.0	0.1	C			5.0	0.04
		10	C	9.5	4.5	C			4.0	1.88
		11	C	21.0	3.5	C			8.8	1.46
		12	F	3.0	0.1	C			1.3	0.04
		13	F	5.0	0.1	C			2.1	0.04
		14	F	6.5	0.1	C			2.7	0.04
		15	F	3.5	0.1	C			1.5	0.04
		16	C	29.5	2	C			12.3	0.83
		17	F	11.0	0.1	C			4.6	0.04
		18	F	5.0	0.1	C			2.1	0.04
		19	F	4.5	0.1	C			1.9	0.04
	D3	20	F	2.5	0.1	C			1.0	0.04
		21	F	2.5	0.1	C	C	photo	1.0	0.04
		22	F	9.8	0.1	C			4.1	0.04
		23	B	3.5	0.5	C			1.5	0.21
		24	F	7.0	0.1	C	C	photo	2.9	0.04
		25	F	8.5	0.1	C			3.5	0.04
		26	F	35.0	0.15	C			14.6	0.06
		27	F	3.0	0.1	C			1.3	0.04
		28	F	14.5	0.1	C			6.0	0.04
		29	F	17.5	0.15	C			7.3	0.06
		30	B	32.0	0.2	C			13.3	0.08
		31	B	28.5	0.4	C			11.9	0.17
		32	B	25.0	0.3	C			10.4	0.13
		33	M	19.0	0.1	C			7.9	0.04
		34	F	4.5	0.1	C			1.9	0.04
		35	F	3.5	0.1	C			1.5	0.04

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

## MVA SCIENTIFIC CONSULTANTS

## Surface Dust Sample Analysis Sheet

MVA Project# 5394 Amt Collected(cm<sup>2</sup>): 100  
MVA Sample# S0848 Amt Prepped(cm<sup>2</sup>): 0.01  
Client I.D.: 17.VA Filter Area (mm<sup>2</sup>): 1256  
Instrument: Philips 120 Filter Type: PC  
Magnification: 24,000 Openings Analyzed: 4  
Acc. Voltage: 100 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH

Date: 8/7/2007

Page: 2 of 3

Comments: 0.01 ml

ASTM Method: D6480

or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	D3	36	F	2.1	0.1	C			0.9	0.04
		37	M	2.1	0.2	C			0.9	0.08
	C5	38	F	8.0	0.1	C			3.3	0.04
		39	F	2.5	0.1	C			1.0	0.04
		40	F	6.5	0.1	C			2.7	0.04
		41	F	2.1	0.1	C			0.9	0.04
		42	F	4.0	0.1	C			1.7	0.04
		43	F	5.5	0.1	C			2.3	0.04
		44	F	2.2	0.1	C			0.9	0.04
		45	F	9.5	0.1	C			4.0	0.04
		46	F	5.5	0.15	C			2.3	0.06
		47	F	5.5	0.1	C			2.3	0.04
		48	C	46.5	11	C			19.4	4.58
		49	F	6.5	0.1	C			2.7	0.04
		50	M	4.0	0.1	C			1.7	0.04
		51	B	22.0	1	C			9.2	0.42
		52	F	11.5	0.2	C			4.8	0.08
		53	F	39.5	0.1	C			16.5	0.04
		54	F	2.5	0.1	C			1.0	0.04
		55	B	7.0	0.3	C			2.9	0.13
	B3	56	F	1.8	0.1	C			0.8	0.04
		57	F	9.0	0.1	C			3.8	0.04
		58	F	25.0	0.1	C			10.4	0.04
		59	F	6.0	0.1	C			2.5	0.04
		60	F	5.0	0.1	C			2.1	0.04
		61	F	1.5	0.1	C			0.6	0.04
		62	F	6.5	0.1	C			2.7	0.04
		63	F	44.5	0.1	C			18.5	0.04
		64	F	71.0	0.1	C			29.6	0.04
		65	F	6.5	0.1	C			2.7	0.04
		66	F	27.0	0.1	C			11.3	0.04
		67	B	13.0	0.5	C			5.4	0.21
		68	B	2.5	0.2	C			1.0	0.08
		69	F	11.0	0.1	C			4.6	0.04
		70	C	10.0	2.5	C			4.2	1.04

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project#	5394	Amt Collected(cm <sup>2</sup> ):	100
MVA Sample#	S0848	Amt Prepped(cm <sup>2</sup> ):	0.01
Client I.D.:	17.VA	Filter Area (mm <sup>2</sup> ):	1256
Instrument:	Philips 120	Filter Type:	PC
Magnification:	24,000	Openings Analyzed:	4
Acc. Voltage:	100	Grid Opening (mm <sup>2</sup> ):	0.009

or D5755

X

\*NFD or NSD = No Fibers Detected or No Structures Detected

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

## MVA SCIENTIFIC CONSULTANTS

## Surface Dust Sample Analysis Sheet

MVA Project# 5394 Amt Collected(cm<sup>2</sup>): 100  
MVA Sample# S0849 Amt Prepped(cm<sup>2</sup>): 0.01  
Client I.D.: 18.VA Filter Area (mm<sup>2</sup>): 1256  
Instrument: Philips 120 Filter Type: PC  
Magnification: 24,000 Openings Analyzed: 4  
Acc. Voltage: 100 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH

Date: 8/7/2007

Page: 1 of 2

Comments: 0.01 ml

ASTM Method: D6480

or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	B2	1	F	3.5	0.1	C			1.5	0.04
		2	F	8.5	0.1	C			3.5	0.04
		3	F	9.0	0.1	C			3.8	0.04
		4	F	9.5	0.1	C			4.0	0.04
		5	F	2.2	0.1	C			0.9	0.04
		6	F	9.5	0.1	C			4.0	0.04
		7	B	8.0	0.3	C			3.3	0.13
		8	F	12.0	1.5	C			5.0	0.63
		9	F	5.5	0.1	C			2.3	0.04
		10	F	5.0	0.2	C			2.1	0.08
		11	F	8.5	0.1	C			3.5	0.04
		12	B	4.5	0.4	C			1.9	0.17
		13	B	38.0	0.5	C			15.8	0.21
		14	C	9.5	6.5	C			4.0	2.71
	C4	15	F	5.1	0.1	C			2.1	0.04
		16	F	5.5	0.1	C			2.3	0.04
		17	F	13.0	0.1	C			5.4	0.04
		18	C	13.0	2.1	C			5.4	0.88
		19	B	5.0	0.5	C			2.1	0.21
		20	F	3.0	0.1	C			1.3	0.04
		21	F	7.5	0.1	C			3.1	0.04
		22	F	5.6	0.1	C			2.3	0.04
		23	F	3.0	0.1	C			1.3	0.04
		24	F	5.0	0.1	C			2.1	0.04
		25	B	6.5	0.8	C			2.7	0.33
		26	F	6.0	0.1	C			2.5	0.04
		27	B	6.0	0.3	C			2.5	0.13
	E7	28	F	2.0	0.1	C			0.8	0.04
		29	C	79.0	7.5	C			32.9	3.13
		30	F	2.5	0.1	C			1.0	0.04
		31	F	19.5	0.1	C			8.1	0.04
		32	F	7.0	0.1	C			2.9	0.04
		33	F	2.0	0.1	C			0.8	0.04
		34	F	3.5	0.1	C			1.5	0.04
		35	F	3.5	0.1	C			1.5	0.04

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos



MVA Project#	5394	Amt Collected(cm <sup>2</sup> ):	100
MVA Sample#	S0849	Amt Prepped(cm <sup>2</sup> ):	0.01
Client I.D.:	18.VA	Filter Area (mm <sup>2</sup> ):	1256
Instrument:	Philips 120	Filter Type:	PC
Magnification:	24,000	Openings Analyzed:	4
Acc. Voltage:	100	Grid Opening (mm <sup>2</sup> ):	0.009

or D5755 X

5394report082907\_741P\_rev1\_714P\_101007

## Surface Dust Sample Analysis Sheet

MVA Project# 5394 Amt Collected(cm<sup>2</sup>): 100  
MVA Sample# S0850 Amt Prepped(cm<sup>2</sup>): 0.01  
Client I.D.: 19.VA Filter Area (mm<sup>2</sup>): 1256  
Instrument: Philips 120 Filter Type: PC  
Magnification: 24,000 Openings Analyzed: 4  
Acc. Voltage: 100 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH  
Date: 8/8/2007  
Page: 1 of 3  
Comments: 0.01 ml  
ASTM Method: D6480  
or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	C1	1	F	5.5	0.1	C			2.3	0.04
		2	F	2.0	0.1	C			0.8	0.04
		3	F	27.0	0.1	C			11.3	0.04
		4	B	25.0	0.8	C			10.4	0.33
		5	F	3.0	0.1	C			1.3	0.04
		6	B	6.5	0.2	C			2.7	0.08
		7	F	4.8	0.1	C			2.0	0.04
		8	F	1.5	0.1	C			0.6	0.04
		9	F	4.0	0.1	C			1.7	0.04
		10	B	5.0	0.3	C			2.1	0.13
		11	F	96.0	0.1	C			40.0	0.04
		12	F	2.5	0.1	C			1.0	0.04
		13	F	2.0	0.1	C			0.8	0.04
		14	F	3.5	0.1	C			1.5	0.04
		15	F	5.1	0.1	C			2.1	0.04
		16	F	3.0	0.3	C			1.3	0.13
		17	F	31.5	0.1	C			13.1	0.04
		18	C	7.0	2	C			2.9	0.83
		19	F	12.0	0.1	C			5.0	0.04
		20	B	9.0	0.4	C	C	photo	3.8	0.17
		21	F	12.5	0.1	C			5.2	0.04
		22	F	29.5	0.1	C			12.3	0.04
		23	F	2.5	0.1	C			1.0	0.04
		24	F	21.5	0.1	C			9.0	0.04
		25	F	6.0	0.1	C			2.5	0.04
		26	F	3.1	0.1	C			1.3	0.04
		27	F	2.5	0.1	C			1.0	0.04
		28	F	8.0	0.1	C			3.3	0.04
	D3	29	F	40.5	0.1	C			16.9	0.04
		30	B	5.5	0.8	C			2.3	0.33
		31	B	2.5	0.5	C			1.0	0.21
		32	F	17.0	0.1	C			7.1	0.04
		33	B	7.5	0.4	C			3.1	0.17
		34	B	9.0	0.2	C			3.8	0.08
		35	F	5.5	0.1	C			2.3	0.04

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

## MVA SCIENTIFIC CONSULTANTS

## Surface Dust Sample Analysis Sheet

MVA Project# 5394 Amt Collected(cm<sup>2</sup>): 100  
MVA Sample# S0850 Amt Prepped(cm<sup>2</sup>): 0.01  
Client I.D.: 19.VA Filter Area (mm<sup>2</sup>): 1256  
Instrument: Philips 120 Filter Type: PC  
Magnification: 24,000 Openings Analyzed: 4  
Acc. Voltage: 100 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH  
Date: 8/8/2007  
Page: 2 of 3  
Comments: 0.01 ml  
ASTM Method: D6480  
or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	D3	36	F	2.2	0.1	C			0.9	0.04
		37	F	7.0	0.1	C			2.9	0.04
		38	B	57.5	0.4	C			24.0	0.17
		39	F	3.2	0.1	C			1.3	0.04
		40	F	34.0	0.1	C			14.2	0.04
		41	C	29.0	1	C			12.1	0.42
		42	B	7.0	0.8	C			2.9	0.33
		43	F	6.5	0.1	C			2.7	0.04
		44	F	2.5	0.1	C			1.0	0.04
		45	F	7.1	0.1	C			3.0	0.04
	E7	46	F	6.0	0.1	C			2.5	0.04
		47	B	7.0	0.3	C			2.9	0.13
		48	F	43.5	0.1	C			18.1	0.04
		49	B	11.5	1	C			4.8	0.42
		50	F	40.5	0.1	C			16.9	0.04
		51	F	6.5	0.1	C			2.7	0.04
		52	F	22.5	0.1	C			9.4	0.04
		53	F	36.0	0.1	C			15.0	0.04
		54	F	1.8	0.15	C			0.8	0.06
		55	F	5.4	0.1	C			2.3	0.04
		56	F	3.0	0.1	C			1.3	0.04
		57	B	4.5	0.2	C			1.9	0.08
		58	F	10.2	0.1	C			4.3	0.04
		59	F	12.5	0.1	C			5.2	0.04
		60	F	5.0	0.1	C			2.1	0.04
		61	F	2.5	0.1	C			1.0	0.04
		62	F	3.5	0.15	C			1.5	0.06
		63	F	24.5	0.1	C			10.2	0.04
		64	B	3.5	0.2	C			1.5	0.08
		65	B	6.0	0.3	C			2.5	0.13
		66	F	12.5	0.1	C			5.2	0.04
	G8	67	F	14.0	0.1	C			5.8	0.04
		68	F	10.2	0.1	C			4.3	0.04
		69	C	40.0	10	C			16.7	4.17
		70	F	3.1	0.1	C			1.3	0.04

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

Amt Collected( $\text{cm}^2$ ): 100

or D5755 X

5394report082907\_741P\_rev1\_714P\_101007

Surface Dust Sample Analysis Sheet

MVA Project# 5394  
 MVA Sample# S0851  
 Client I.D.: 20.VA  
 Instrument: Philips 120  
 Magnification: 24,000  
 Acc. Voltage: 100

Amt Collected(cm<sup>2</sup>): 100  
 Amt Prepped(cm<sup>2</sup>): 0.01  
 Filter Area (mm<sup>2</sup>): 1256  
 Filter Type: PC  
 Openings Analyzed: 4  
 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH  
 Date: 8/8/2007  
 Page: 1 of 4  
 Comments: 0.01 ml  
 ASTM Method: D6480  
 or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	C2	1	F	4.5	0.1	C			1.9	0.04
		2	F	4.6	0.1	C			1.9	0.04
		3	F	3.0	0.1	C			1.3	0.04
		4	F	2.5	0.2	C			1.0	0.08
		5	M	2.5	0.1	C			1.0	0.04
		6	F	3.2	0.1	C			1.3	0.04
		7	F	2.5	0.1	C			1.0	0.04
		8	F	1.9	0.1	C			0.8	0.04
		9	B	4.0	0.2	C			1.7	0.08
		10	B	4.6	0.5	C			1.9	0.21
		11	F	15.5	0.1	C			6.5	0.04
		12	F	2.5	0.15	C			1.0	0.06
		13	F	15.5	0.2	C			6.5	0.08
		14	B	3.5	0.5	C			1.5	0.21
		15	B	8.5	0.6	C			3.5	0.25
		16	F	30.0	0.1	C			12.5	0.04
		17	B	9.0	0.5	C			3.8	0.21
		18	F	10.0	0.1	C			4.2	0.04
		19	F	8.5	0.1	C			3.5	0.04
		20	B	6.5	0.3	C			2.7	0.13
		21	F	21.5	0.1	C			9.0	0.04
		22	F	20.0	0.1	C			8.3	0.04
		23	C	5.4	1.6	C			2.3	0.67
		24	F	6.5	0.2	C			2.7	0.08
		25	F	12.0	0.1	C			5.0	0.04
		26	F	31.5	0.1	C			13.1	0.04
		27	F	2.5	0.1	C			1.0	0.04
	E4	28	F	8.0	0.1	C			3.3	0.04
		29	B	10.5	0.4	C			4.4	0.17
		30	F	4.5	0.1	C			1.9	0.04
		31	F	8.0	0.1	C			3.3	0.04
		32	F	5.5	0.1	C			2.3	0.04
		33	B	3.0	0.2	C			1.3	0.08
		34	F	27.0	0.1	C			11.3	0.04
		35	B	6.0	1	C			2.5	0.42

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

## MVA SCIENTIFIC CONSULTANTS

## Surface Dust Sample Analysis Sheet

MVA Project# 5394 Amt Collected(cm<sup>2</sup>): 100  
MVA Sample# S0851 Amt Prepped(cm<sup>2</sup>): 0.01  
Client I.D.: 20.VA Filter Area (mm<sup>2</sup>): 1256  
Instrument: Philips 120 Filter Type: PC  
Magnification: 24,000 Openings Analyzed: 4  
Acc. Voltage: 100 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH  
Date: 8/8/2007  
Page: 2 of 4  
Comments: 0.01 ml  
ASTM Method: D6480  
or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	E4	36	C	17	8.5	C			7.1	3.54
		37	F	6.0	0.1	C			2.5	0.04
		38	M	1.5	0.1	C			0.6	0.04
		39	F	32.5	0.1	C			13.5	0.04
		40	F	11.0	0.1	C			4.6	0.04
		41	M	3.5	0.1	C			1.5	0.04
		42	F	3.0	0.1	C			1.3	0.04
		43	F	6.0	0.1	C			2.5	0.04
		44	F	29.0	0.1	C			12.1	0.04
		45	F	5.5	0.1	C			2.3	0.04
		46	F	13.0	0.1	C			5.4	0.04
		47	B	6.0	0.4	C			2.5	0.17
		48	F	12.0	0.1	C			5.0	0.04
		49	F	9.5	0.1	C			4.0	0.04
		50	F	32.5	0.1	C			13.5	0.04
		51	C	12.5	6	C	C	photo	5.2	2.50
		52	F	2.5	0.1	C			1.0	0.04
		53	F	2.6	0.1	C			1.1	0.04
		54	F	10.0	0.15	C			4.2	0.06
		55	F	21.0	0.1	C			8.8	0.04
		56	B	5.0	0.8	C			2.1	0.33
		57	F	14.0	0.1	C			5.8	0.04
		58	F	10.0	0.1	C			4.2	0.04
		59	F	5.6	0.1	C			2.3	0.04
		60	C	19.5	2.5	C			8.1	1.04
		61	F	9.5	0.15	C			4.0	0.06
	G5	62	F	6.0	0.15	C			2.5	0.06
		63	F	18.0	0.1	C			7.5	0.04
		64	F	1.5	0.1	C			0.6	0.04
		65	F	1.0	0.1	C			0.4	0.04
		66	B	4.5	0.2	C			1.9	0.08
		67	F	10.5	0.1	C			4.4	0.04
		68	M	2.0	0.1	C	C	photo	0.8	0.04
		69	F	5.0	0.1	C			2.1	0.04
		70	C	5.5	1.5	C			2.3	0.63

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA SCIENTIFIC CONSULTING  
Surface Dust Sample Analysis Sheet

MVA Project# 5394  
 MVA Sample# S0851  
 Client I.D.: 20.VA  
 Instrument: Philips 120  
 Magnification: 24,000  
 Acc. Voltage: 100

Amt Collected(cm<sup>2</sup>): 100  
 Amt Prepped(cm<sup>2</sup>): 0.01  
 Filter Area (mm<sup>2</sup>): 1256  
 Filter Type: PC  
 Openings Analyzed: 4  
 Grid Opening (mm<sup>2</sup>): 0.009

Analyst: WH  
 Date: 8/8/2007  
 Page: 3 of 4  
 Comments: 0.01 ml  
 ASTM Method: D6480  
 or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	G5	71	B	6	0.3	C			2.5	0.13
		72	C	23.5	2	C			9.8	0.83
		73	M	7.5	0.1	C			3.1	0.04
		74	F	6.0	0.15	C			2.5	0.06
		75	F	18.0	0.1	C			7.5	0.04
		76	F	11.0	0.1	C			4.6	0.04
		77	F	7.5	0.1	C			3.1	0.04
		78	F	3.5	0.1	C			1.5	0.04
		79	F	2.5	0.15	C			1.0	0.06
		80	F	3.0	0.1	C			1.3	0.04
		81	F	12.0	0.1	C			5.0	0.04
		82	F	13.0	0.1	C			5.4	0.04
		83	F	13.0	0.1	C			5.4	0.04
		84	F	2.0	0.1	C			0.8	0.04
		85	F	5.5	0.1	C			2.3	0.04
		86	F	3.0	0.1	C			1.3	0.04
		87	F	2.0	0.1	C			0.8	0.04
		88	F	17.5	0.1	C			7.3	0.04
		89	F	22.0	0.1	C			9.2	0.04
		90	F	3.0	0.1	C			1.3	0.04
	I1	91	F	3.5	0.1	C			1.5	0.04
		92	F	4.0	0.1	C			1.7	0.04
		93	F	23.0	0.1	C			9.6	0.04
		94	F	9.5	0.1	C			4.0	0.04
		95	F	6.0	0.1	C			2.5	0.04
		96	F	17.0	0.1	C			7.1	0.04
		97	F	4.6	0.1	C			1.9	0.04
		98	F	20.1	0.1	C			8.4	0.04
		99	F	10.0	0.1	C			4.2	0.04
		100	F	5.5	0.1	C			2.3	0.04
		101	F	7.5	0.1	C			3.1	0.04
		102	M	1.5	0.1	C			0.6	0.04
		103	C	6.0	0.7	C			2.5	0.29
		104	F	8.0	0.1	C			3.3	0.04
		105	C	52.5	7.5	C			21.9	3.13

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\* On Screen Measurement

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

Amt Collected(cm <sup>2</sup> ):	100
Amt Prepped(cm <sup>2</sup> ):	0.01
Filter Area (mm <sup>2</sup> ):	1256
Filter Type:	PC
Openings Analyzed:	4
Grid Opening (mm <sup>2</sup> ):	0.009

MVA Project#	5394
MVA Sample#	S0851
Client I.D.:	20.VA
Instrument:	Philips 120
Magnification:	24,000
Acc. Voltage:	100

or D5755

 $\bar{x}$ 

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos



Amt Collected(cm<sup>2</sup>): 0

Analyst: WH  
Date: 8/8/2007  
Page: 1 of 1  
Comments: 10 ml  
ASTM Method: D6480  
or D5755 X

\*NFD or NSD = No Fibers Detected or No Structures Detected

\*\*\* Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos